

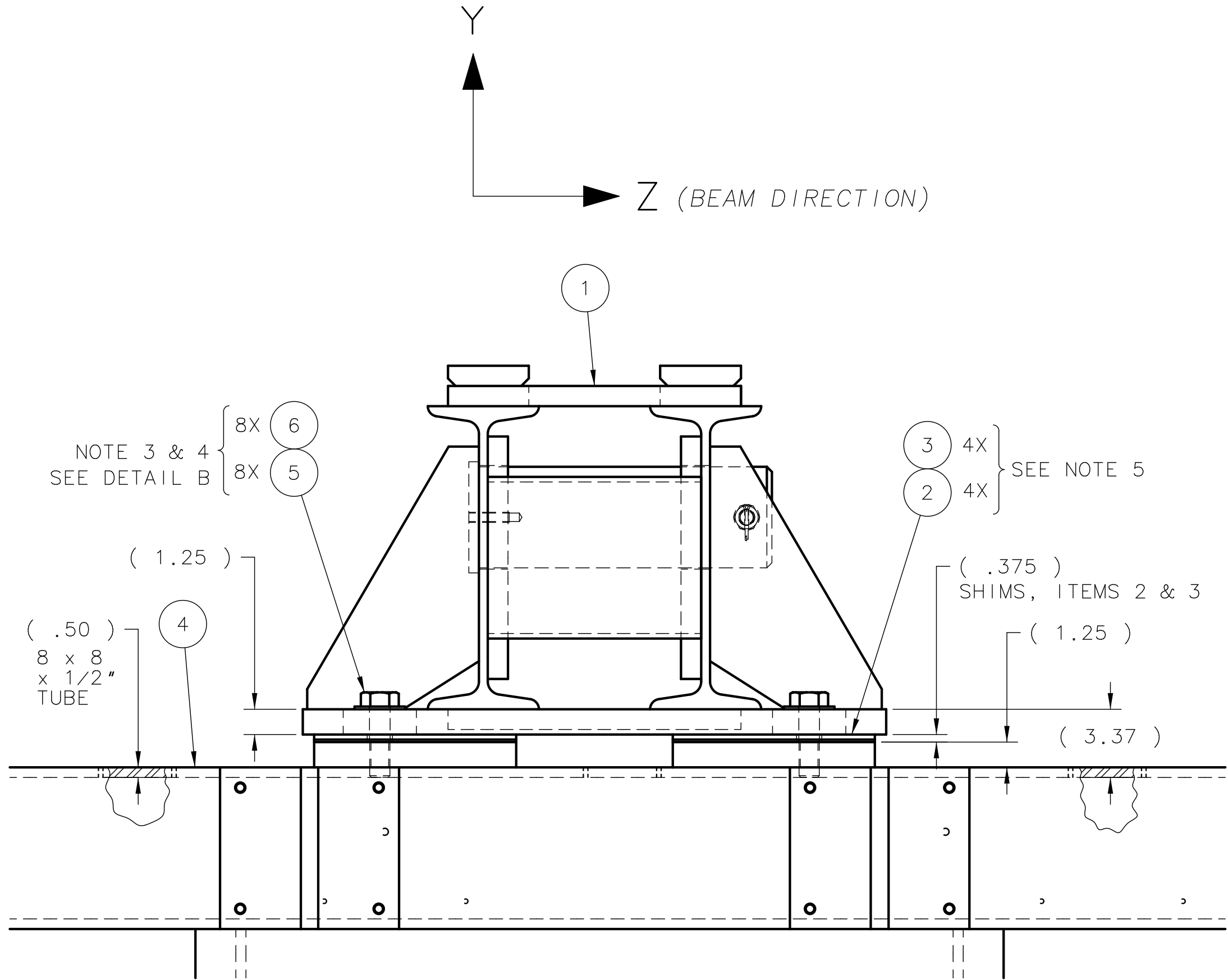
8X (5)
8X (6) } NOTES 3 & 4

PLAN VIEW
(SIMPLIFIED VIEW OF DETECTOR)
SCALE 1/8

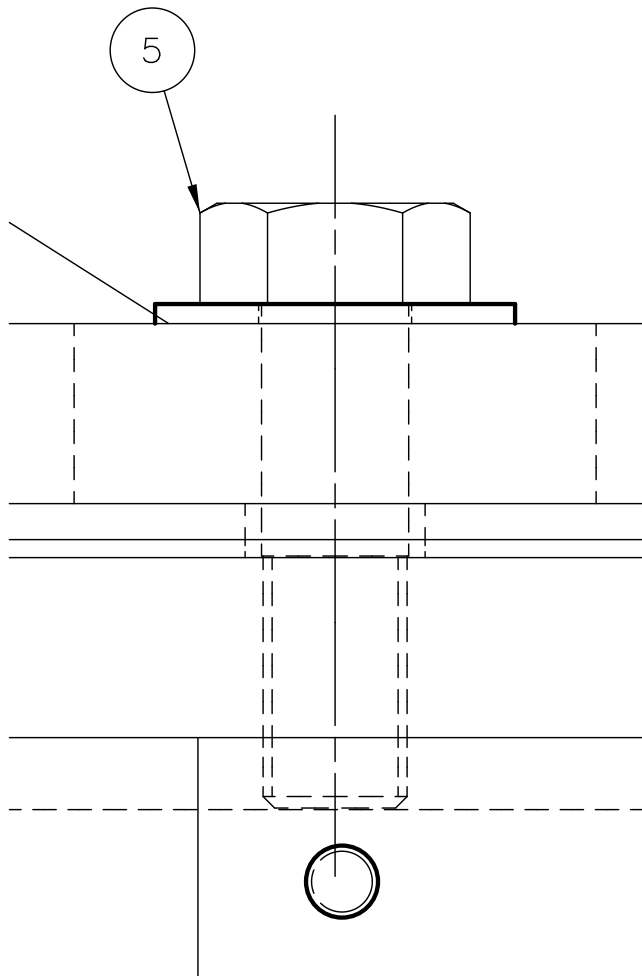
Z (BEAM DIRECTION)
X

NOTES:

1. THE MINIMUM EFFECTIVE THREAD BEARING LENGTH FOR ALL BOLTS (ITEM 5) IS 1-5/8", AND THE MINIMUM FULL BOLT LENGTH IS 3-1/2".
2. USE THE CORRECT SHIMS AND WASHERS TO PREVENT THE SHOULDER OF THE BOLTS FROM MEETING THE TOP SURFACE OF THE THREADED PAD OF THE MAIN FRAME.
3. OBTAIN THE CORRECT CENTER OF GRAVITY FOR LIFTING THE DETECTOR BY ADJUSTING THE LIFTING FIXTURE, ITEM 1, IN BEAM DIRECTION "Z".
4. UNIFORMLY TIGHTEN THE 8 BOLTS, ITEM 5. THE REFERENCE TIGHTENING TORQUE IS 198 FT-LBS TO 265 FT-LBS.
5. USE ONLY ITEM 2 OR ONLY ITEM 3 IN ALL LOCATIONS IF ALL OF THE BOLTS (ITEM 5) ARE FULLY THREADED.
6. REMOVE ALL TOP RAILINGS BEFORE THE INSTALLATION OF THE LIFTING FIXTURE.
7. TOTAL APPROX LIFTING WEIGHT: 36 TONS



VIEW A-A
(END VIEW)
ROTATED 90° CW
SCALE 3/16



DETAIL B
SCALE 3/4

NOTICE: IMAGE OBTAINED FROM FERMILAB WEB SITE
This information is provided for REFERENCE use only.
Not for MANUFACTURE, or DESIGN INFORMATION.
All information contained in this document represents work sponsored by an agency of the U.S. Government. Neither the U.S. Government nor any agency thereof, nor Universities Research Association, Inc., nor any of their employees or officers, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

6	COML	WASHER, FLAT, ASTM F436 STRUCTURAL, STEEL OR EQUIVALENT, 1" SCREW SIZE, .136"-.177" THK,	8
5	COML	CAP SCREW, HEAVY HEX, GRADE 5 STEEL OR EQUIVALENT, 1"-8UNC THD - SEE NOTE 1	8
4	ME-444071	FRAME SCIBAR EC MODIFIED	REF
3	MC-444537	SHIM LIFTING FIXTURE .25 THK	4
2	MC-444536	SHIM LIFTING FIXTURE .125 THK	4
1	MD-444466	LIFTING FIXTURE NO. 160	1
ITEM	PART NO.	DESCRIPTION OR SIZE	QTY.

PARTS LIST					
UNLESS OTHERWISE SPECIFIED			ORIGINATOR	E.CHI	06-APR-2007
.XX			DRAWN	T.SPERRY	06-APR-2007
+ - -			CHECKED	J.RAUCH	12-APR-2007
1. BREAK ALL SHARP EDGES MAX.			APPROVED	E.CHI	12-APR-2007
2. DO NOT SCALE DRAWING.			USED ON		
3. DIMENSIONS BASED UPON ASME Y14.5M-1994					
4. MAX. ALL MACH. SURFACES			MATERIAL		
5. DRAWING UNITS: U.S. INCH			SEE PARTS LIST ABOVE		

FERMI NATIONAL ACCELERATOR LABORATORY UNITED STATES DEPARTMENT OF ENERGY			
SCIBOONE - MECHANICAL DETECTORS LIFTING FIXTURE INSTALLATION			
SCALE 1/8 & AS NOTED	DRAWING NUMBER 3954.330-MD-444571	SHEET 1 OF 1	REV
CREATED WITH : Ideas12NXSeries		GROUP: PPD/MECHANICAL DEPARTMENT	